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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/756,903

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Sung H. Kuo

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EXAMINER

PHAN, RAYMOND NGAN

ART UNIT

PAPER NUMBER

2111

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/756,903

Applicant(s)

KUO ET AL.

Examiner

Raymond Phan

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Part III DETAILED ACTION

Notice to Applicant(s)

1. This action is responsive to the following communications:
amendment filed on March 7, 2006.
2. This application has been examined. Claims 1-24 are pending.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.).

5. Claims 1-24 are rejected under 35 U.S.C. § 102(e) as being anticipated by MacLaren et al. (US No 5,930,496).

In regard to claims 1, 15, 18, MacLaren et al. disclose a system, comprising: a bridge 116 (see figure 2); a logic device 200 (see figure 3); and a plurality of slots 98 coupled to the bridge 116 via a bus segment and to the logic device (see figure 3, col. 6, lines 37-67), each slot being capable of receiving an add-in card (see figure 3); wherein the logic device determines whether a card is installed in any of the slots (see col. 6, lines 37-52) and, if a card is installed in a slot, the logic device determines in which slot the card is installed (see col. 6, lines 55-59) and causes the bridge to configure the

bus segment based on location of cards, if any, in the slots (see col. 10, lines 1-56).

In regard to claim 2, MacLaren et al. disclose wherein the logic device comprises a programmable logic device (see col. 6, lines 37-52).

In regard to claim 3, MacLaren et al. disclose wherein the logic device receives presence signals (i.e. PRSNT) associated with each slot, the presence signals for a particular slot encode whether or not a card is present in that particular slot (see col. 13, lines 13-31).

In regard to claims 4, 14, MacLaren et al. disclose wherein each add-in card comports with any of a plurality of card types (see col. 9, lines 5-37) and the bridge configures the bus segment based on card type as well as location of cards (see col. 11, lines 10-45).

In regard to claims 5, 19, MacLaren et al. disclose wherein the bridge configures the bus segment by selecting one of a plurality of selectable clock frequencies for the bus segment (see col. 10, lines 57-64).

In regard to claims 6, 16, MacLaren et al. disclose wherein the bridge configures the bus segment by selecting a higher clock frequency if a card is installed in a predetermined slot and no other cards are installed in other slots (see col. 10, lines 57-64) or by selecting a lower clock frequency if a plurality of cards are installed in the slots or only a single card is installed in a slot other than the predetermined slot (see col. 10, lines 57-64).

In regard to claims 7, 17, 20, MacLaren et al. disclose wherein the bridge also configures the bus segment by causing one of a plurality of selectable voltage levels to be applied to the bus segment (see col. 10, lines 32-56).

In regard to claims 8, 24, MacLaren et al. disclose wherein the bridge configures the bus segment by causing one of a plurality of selectable voltage levels to be applied to the bus segment (see col. 10, lines 32-56).

In regard to claim 9, MacLaren et al. disclose wherein the bus segment is a PCI-X bus segment (see col. 10, lines 57-65).

In regard to claims 10, 12, MacLaren et al. disclose a logic device that contains a plurality of gates (see figure 3, col. 6, lines 38-53) configured to receive presence signals (i.e. PRSNT) from a plurality of slots into which add-in cards may be installed (see col. 13, lines 12-31), the presence signals indicating whether a card is installed in a particular slot (see col. 13, lines 12-31), the logic device's gates are further configured to cause a bridge device to configure a clock frequency of a bus segment based on slot location for the installed cards (see col. 10, lines 57-64).

In regard to claim 11, MacLaren et al. disclose wherein the slots comprise a middle agent slot and an end-agent slot (see figure 7, col. 12, lines 30-46), the middle agent slot being electrically disposed between the bridge and the end agent slot (see figure 7, col. 12, lines 30-46), and the gates of the logic device are further configured to individually determine whether add-in cards are installed in the end agent slot and the middle agent slot (see col. 13, lines 12-31).

In regard to claim 13, MacLaren et al. disclose wherein the bridge device is configured to couple to a logic device (see figure 2), and wherein the bridge device receives a signal from the logic device that causes the bridge device to configure the bus segment at speed that is lower than a rated speed of said card (see col. 10, lines 57-64).

In regard to claim 21, MacLaren et al. disclose a method usable in conjunction with configuring a bus segment, the method comprising: determining whether a card is located in a first of two slots coupled to the bus segment (see figure 3, col. 13, lines 12-31); and if a card is installed in the first slot, preventing the bus segment from operating at a maximum speed permitted by the bus segment (see col. 13, lines 46-65).

In regard to claim 22, MacLaren et al. disclose further comprising configuring the bus segment to operate at its maximum speed only if the second of the two slots has a card located therein (see col. 13, lines 47-65).

In regard to claim 23, MacLaren et al. disclose wherein the bus segment is configured to operate at the maximum speed only if the card located in the second slot also is operational at the maximum speed (see col. 13, lines 47-65).

Response to Amendment

6. Applicant's arguments and affidavit, see page 7, filed March 7, 2006, with respect to the rejection of claims 1-24 under 35USC102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of MacLaren et al..

Conclusion

7. All claims are rejected.

8. The prior arts made of record and not relied upon are considered pertinent to applicant's disclosure.

Beatty et al. (US No. 5,781,798) disclose a method and apparatus for providing hot swapping capability in a computer system with static peripheral driver software.

Art Unit: 2111

Caprio et al. (US No. 4,670,855) disclose an interchangeable interface circuit structure.

Mahalingam (US No. 6,243,773) discloses a configuration management system for hot adding and hot replacing devices.

Chan (US No. 6,658,507) disclose a system and method for hot insertion of computer-related add-on cards.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Raymond Phan, whose telephone number is (571) 272-3630. The examiner can normally be reached on Monday-Friday from 6:30AM- 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary, Paul Myers can be reached on (571) 272-3639 or via e-mail addressed to paul.myers@uspto.gov. The fax phone number for this Group is (571) 273-8300.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [raymond.phan@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see [hop://pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 central telephone number is (571) 272-2100.



Raymond Phan
May 18, 2006



MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100